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(FILE 'HOME' ENTERED AT 09:18:15 ON 01 OCT 2003)

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI, BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, ...' ENTERED AT 09:19:19 ON 01 OCT 2003

SEA (FUSION PROTEIN) OR (HYBRID PROTEIN) OR (CHIMER? PROTEIN)

387 FILE ADISCTI
141 FILE ADISINSIGHT
67 FILE ADISNEWS
1743 FILE AGRICOLA
126 FILE ANABSTR
266 FILE AQUASCI
669 FILE BIOBUSINESS
512 FILE BIOCOMMERCE
27698 FILE BIOSIS
11711 FILE BIOTECHABS
11711 FILE BIOTECHDS
25210 FILE BIOTECHNO
3341 FILE CABA
21573 FILE CANCERLIT
38591 FILE CAPLUS
1252 FILE CEABA-VTB
29 FILE CEN
379 FILE CIN
293 FILE CONFSCI
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170 FILE DRUGUPDATES
258 FILE EMBAL
25751 FILE EMBASE
15041 FILE ESBIODBASE
1774 FILE FEDRIP
50 FILE FROSTI
381 FILE FSTA
7997 FILE GENBANK
9 FILE HEALSAFE
5348 FILE IFIPAT
1852 FILE JICST-EPLUS
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14293 FILE LIFESCI
4 FILE MEDICONF
61165 FILE MEDLINE
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178 FILE NTIS
29 FILE OCEAN
7212 FILE PASCAL
2222 FILE PCTGEN
118 FILE PHAR
51 FILE PHARMAML
3 FILE PHIC
238 FILE PHIN
1402 FILE PROMT
3 FILE RDISCLOSURE

23390 FILE SCISEARCH
1 FILE SYNTHLINE
22060 FILE TOXCENTER
28370 FILE USPATFULL
740 FILE USPAT2
1 FILE VETB
203 FILE VETU
6023 FILE WPIDS
6023 FILE WPINDEX

L1 QUE (FUSION PROTEIN) OR (HYBRID PROTEIN) OR (CHIMER? PROTEIN)

FILE 'MEDLINE, CAPLUS, USPATFULL, BIOSIS, EMBASE, BIOTECHNO, SCISEARCH,
TOXCENTER, CANCERLIT, ESBIODBASE, LIFESCI, BIOTECHDS' ENTERED AT 09:23:20
ON 01 OCT 2003

L2 1095 S L1 AND GLYCOSYLTRANSFERASE
L3 688 S L1 AND SIALYLTRANSFERASE
L4 217 S L3 AND SYNTHETASE
L5 206 DUP REM L4 (11 DUPLICATES REMOVED)

=> log Y

L5 ANSWER 202 OF 206 MEDLINE on STN DUPLICATE 3

ACCESSION NUMBER: 1998368159 MEDLINE
DOCUMENT NUMBER: 98368159 PubMed ID: 9702777
TITLE: The synthesis of sialylated oligosaccharides using a
CMP-Neu5Ac **synthetase/sialyltransferase**
fusion.
COMMENT: Comment in: Nat Biotechnol. 1998 Aug;16(8):720-1
AUTHOR: Gilbert M; Bayer R; Cunningham A M; DeFrees S; Gao Y;
Watson D C; Young N M; Wakarchuk W W
CORPORATE SOURCE: Institute for Biological Sciences, National Research
Council of Canada, Ottawa, Ontario, Canada.
SOURCE: NATURE BIOTECHNOLOGY, (1998 Aug) 16 (8) 769-72.
Journal code: 9604648. ISSN: 1087-0156.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199810
ENTRY DATE: Entered STN: 19981029
Last Updated on STN: 19981029
Entered Medline: 19981022

AB Large-scale enzymatic synthesis of oligosaccharides, which contain
terminal N-acetyl-neuraminic acid residues requires large amounts of the
sialyltransferase and the corresponding sugar-nucleotide
synthetase, which is required for the synthesis of the
sugar-nucleotide donor, CMP-Neu5Ac. Using genes cloned from *Neisseria*
meningitidis, we constructed a **fusion protein** that has
both CMP-Neu5Ac **synthetase** and alpha-2,3-
sialyltransferase activities. The **fusion**
protein was produced in high yields (over 1200 U/L, measured using
an alpha-2,3-**sialyltransferase** assay) in *Escherichia coli* and
functionally pure enzyme could be obtained using a simple protocol. In
small-scale enzymatic syntheses, the **fusion protein**
could sialylate various oligosaccharide acceptors (branched and linear)
with N-acetyl-neuraminic acid as well as N-glycolyl- and
N-propionyl-neuraminic acid in high conversion yield. The **fusion**
protein was also used to produce alpha-2,3-sialyllactose at the
100 g scale using a sugar nucleotide cycle reaction, starting from
lactose, sialic acid, phosphoenolpyruvate, and catalytic amounts of ATP
and CMP.

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L3: Entry 1 of 4

File: PGPB

Sep 25, 2003

PGPUB-DOCUMENT-NUMBER: 20030180928
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030180928 A1

TITLE: Fusion protein comprising a UDP-Galnac 4' epimerase and a galnac transferase

PUBLICATION-DATE: September 25, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Gilbert, Michel	Hull		CA	
Young, N. Martin	Gloucester		CA	
Wakarchuk, Warren W.	Gloucester		CA	

US-CL-CURRENT: [435/193](#); [435/320.1](#), [435/325](#), [435/6](#), [435/69.7](#), [536/23.2](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KIMC	Draw Desc	Image
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☐ 2. Document ID: US 20020034805 A1

L3: Entry 2 of 4

File: PGPB

Mar 21, 2002

PGPUB-DOCUMENT-NUMBER: 20020034805
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020034805 A1

TITLE: FUSION PROTEINS FOR USE IN ENZYMATIC SYNTHESIS OF OLIGOSACCHARIDES

PUBLICATION-DATE: March 21, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
GILBERT, MICHEL	HULL		CA	
YOUNG, N. MARTIN	GLOUCESTER		CA	
WAKARCHUK, WARREN W.	GLOUCESTER		CA	

US-CL-CURRENT: [435/193](#); [435/183](#), [435/200](#), [435/320.1](#), [435/325](#), [536/23.2](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KIMC	Draw Desc	Image
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☐ 3. Document ID: US 20020009730 A1

L3: Entry 3 of 4

File: PGPB

Jan 24, 2002

PGPUB-DOCUMENT-NUMBER: 20020009730
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020009730 A1

TITLE: Human stress array

PUBLICATION-DATE: January 24, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Chenchik, Alex	Palo Alto	CA	US	
Lukashev, Matvey E.	Newton	MA	US	

US-CL-CURRENT: 435/6; 536/24.3

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KIMC	Draw. Desc	Image
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☐ 4. Document ID: US 20020001831 A1

L3: Entry 4 of 4

File: PGPB

Jan 3, 2002

PGPUB-DOCUMENT-NUMBER: 20020001831
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020001831 A1

TITLE: Low cost manufacture of oligosaccharides

PUBLICATION-DATE: January 3, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Defrees, Shawn	North Wales	PA	US	
Johnson, Karl	Willow Grove	PA	US	

US-CL-CURRENT: 435/101; 435/84, 536/53

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KIMC	Draw. Desc	Image
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L2 same synthetase

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US Pre-Grant Publication Full-Text Database
JPO Abstracts Database
EPO Abstracts Database
Derwent World Patents Index

Database: IBM Technical Disclosure Bulletins**Search:**

L3

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	<i>DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ</i>		
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<u>L2</u>	L1 same sialyltransferase	31	<u>L2</u>
<u>L1</u>	fusion protein	33304	<u>L1</u>

END OF SEARCH HISTORY